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Clark Canyon Recreation Area

by Ashley Roberts

On August 9, 1805, the Journals of the Lewis and Clark Expedition reveal that "Captain Lewis and three men (Drewyer, Shields and McNeal) set out after breakfast to examine the river, find a portage if possible, also the Snake Indians." The following day, August 10, Lewis' party "arrived in a handsome open and level valley where the river divided itself into equal branches; here I halted and examined those streams and readily discovered from their size that it would be vain to attempt the navigation of either any further." The two streams are known today as Horse Prairie Creek and Red Rock River, forming the Beaverhead River and the site of Clark Canyon Reservoir constructed by the Bureau of Reclamation.

Clark Canyon Dam provides the water storage for the East Bench Unit of the Missouri River Basin Project. The reservoir has a capacity of 261,000 acre-feet and extends about five miles up both Red Rock River and Horse Prairie Creek. It has a maximum water surface of about 6,400 acres and a water surface of about 4,500 acres at the top of the conservation storage. The dam is an earth and rockfill structure about 113 feet high and about 2,600 feet long, including the spillway.

In 1965 the Parks Section signed a Memorandum of Understanding with the Bureau of Reclamation whereby certain areas around the reservoir would be administered by the State Parks Section for recreation purposes. The purpose was to provide camping, boating, fishing, picnicking and sightseeing facilities for the convenience of the public. As a part of the Memorandum of Understanding with the Parks Section, the Barretts Diversion Dam, located some 11 miles north of the reservoir, was also included for administration.

View of dam and shelters from "Camp Fortunate Overlook," on Clark Canyon Reservoir.

Site plans for the installation of facilities were developed by the National Park Service. The Parks Section then installed the facilities under contract with the Bureau of Reclamation. The bureau supplied the funds and the Parks Section made the installations.

At the Barretts Diversion Dam a small parking area was provided along with picnic tables, fireplaces, sanitary facilities and water. The area is popular and receives considerable recreation use as it is only a short distance from Dillon and adjacent to Interstate Highway 15.

The Beaverhead Public Use area on the reservoir is relatively small and is located immediately adjacent to the dam on the east side and also adjacent to Interstate Highway 15. It has been well supplied with facilities and is quite popular with campers, picnickers and boaters.

The Lewis and Clark Public Use and Campground area is on the west side of the reservoir and starts immediately opposite the west end of the dam and extends in a southerly direction. This area is small but is popular with boaters because of protection for the boat launching ramp. At one high point in the area with a view of the entire reservoir, an overlook building has been provided which contains the Camp Fortunate marker which was moved up from the old location along the highway.

The Horse Prairie Public Use area

is located to the west and south of the Lewis and Clark area. It is the largest of the recreation areas and contains some 480 acres. Provisions have been made for day use, picnicking and swimming with a boat ramp and another separate area for camping.

The group camping area is located on the south side of the reservoir near the extreme west end and contains approximately 280 acres. The area may be used by groups such as Boy Scouts, Girl Scouts, church groups and other organizations. The area is also available to the general public when not in use for group camping.

The island near the north side of the reservoir has been planned for recreation and facilities have been installed. The area is accessible only by boat.

On the downstream side is the riverside area. This is a very small site and contains only minimum facilities. It is popular with fishermen.

In the Lewis and Clark area a concession is in operation which provides services for visitors to the reservoir.

Since the reservoir has been filled and the public use facilities installed, the recreation areas at Clark Canyon have been quite popular. Visitors travel considerable distances to try their skill at fishing in the reservoir. Swimming and water skiing are popular although the season is somewhat limited because of the elevation (5,500 feet from mean sea level). The water is a little bit chilly except during the middle of the day in July and August.

Clark Canyon Reservoir is one of the major recreation areas in the park system. It is well supplied with facilities and the visitor use is expected to increase each year.

Total time of employment with the Fish and Game Department adds up to more than 100 years for (left to right), Vern Campbell, Ross Snyder, and Ed Furnish. All are superintendents of state fish hatcheries.

100 YEARS OF SERVICE

The Montana Fish and Game Commission recently honored three fish hatchery superintendents for their many years' service to the department. Combined service of Vern Campbell, Ross Snyder and Ed Furnish totals more than 100 years.

Vern Campbell, fish hatchery superintendent at the State Fish Hatchery in Arlee, Mont., started to work for the department on May 26, 1936. Vern worked at the Anaconda Fish Hatchery for several years, spending a part of this time also at the Libby Fish Hatchery and the station at Ovando. His hatchery work was interrupted by a three-year overseas hitch in the army. He continued his career in fish culture and in 1949 was sent as fish hatchery superintendent to the newly constructed Bluewater State Fish Hatchery near Bridger, Montana. Vern operated the Bluewater Hatchery for about three years before moving to his present position at Arlee.

Since moving to the Arlee station Vern has developed a strain of rainbow trout that are fast growing, have good coloration and body form, are resistant to disease, and have a high rate of survival. The brood stock that he holds at Arlee furnishes rainbow eggs for all of the Montana state fish hatcheries. Vern has also recently developed a hatching box which has revolutionized egg handling. The box is compact and efficient, handling a large number of eggs in a relatively small space with low flows of water. Vern has contributed much to fish culture in his years of service.

Ross Snyder is presently fish hatchery superintendent at the State Fish Hatchery in Big Timber, Mont. Ross first started to work for the Fish and Game Department on July 1, 1929, as a hatcheryman at the Big Timber station and has had more time with the department than any employee. Except for seven summers spent at the old Red Lodge Fish Hatchery, one year at the Lewistown Fish Hatchery and three years with the Navy Seabees, all of Ross' service has been accumulated in Big Timber. Ross notes that the biggest changes in fish culture in 38½ years are in the change from ground meat to pelleted feeds, in the methods of

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fish distribution, and in hatchery salaries.

Ed Furnish is the fish hatchery superintendent at the State Fish Hatchery in Lewistown, Montana. Ed began his career with the department grinding liver for fish food at the Big Timber State Fish Hatchery on June 1, 1936. His hatchery service there was broken by a four-year tour of duty in the army, 1941-1945. He came back to Big Timber where he continued in fish culture work and, in 1950, was sent as fish hatchery superintendent to the State Fish Hatchery at Somers, Montana.

Under Ed's guidance the Lewistown station has expanded to become the largest state fish hatchery with many modern inovations. The Lewistown Fish Hatchery provides trout for a large portion of the state.

Blackfoot Game Range Investigations

by James H. Cross, Management Area Biologist

The Blackfoot-Clearwater Game Range, equally well known as the Boyd Ranch, is a 50,000 acre tract managed primarily as a winter range for elk. The range is composed of two separate segments, the Boyd Mountain area and the Ovando Mountain area, which jointly constitute some of the best winter range for elk and deer. Although a posted game management area, the range is not closed to hunting. In fact, it is one of the most popular hunting areas in western Montana.

The purchase of the Boyd Mountain area in 1948 was an important step in alleviating elk damage to haystacks in the Cottonwood Creek area and providing a much needed winter range for elk, mule deer and white-tailed deer.

A lease on the Salmon Lake hills was obtained by the department following the purchase of the Boyd Ranch. This area is important winter range for white-tailed deer. The forest fires of 1910, followed by logging in the 1930's created open slopes suitable for grazing. Heavy use by domestic livestock, particularly sheep, left little forage for game until the department acquired control of grazing and reserved the forage for game.

A land trade in 1957 was the initial transaction in the Ovando Mountain acquisition of about 7,000 acres. Forest fires in 1889 and 1919 created an extensive cover of palatable shrubs which constitute some of the best browse winter range in this area. Snow depths of 30 inches or more usually force deer to lower elevations, but approximately 150 elk are able to winter on the area.

The Boyd Mountain area is adjoined by private ranches to the north and east. For several years after 1948, considerable effort was expended each winter laying bait lines of hay to encourage elk to cross private land to winter on this unit. Observations of migration patterns onto the game range and of animal numbers on the winter range were made concurrent to the baiting. Elk were judged to be making increasingly greater use each year of the Boyd Mountain area as a winter range until about 1960. Since then, the numbers using the range have remained about the same. To avoid overshooting the base herd on the game range, and to keep the elk from being run onto adjacent private ranches where they could again damage haystacks, the hunting season is usually less liberal than in other hunting districts and is closed early in November. The short season apparently does not dampen hunting enthusiasm, for lack of hunting pressure in this area has never been a problem. The excitement experienced by the hunters of Boyd Mountain seems to be equally memorable to those that did not, as well as those that did shoot an elk.

In addition to its primary values as a winter range and public hunting area, the Blackfoot-Clearwater Game Range has been the site of several studies. Starting in 1951, native elk were trapped, tagged with metal ear tags and released. This was done in order to determine the areas from which elk migrate to winter on the game range. Through 1959, 445 elk were trapped, tagged and released on the game range. The return of 170 tags from hunter-harvested elk show the average movement to be about nine miles in a general north to northeast direction from the game range. Some tags have been returned from as far as 20 miles away in the South Fork of the Flathead.

An elk nutrition study was also initiated in 1951. Feeding studies were conducted during the winters of 1952, 1953, and 1954. Native elk were used throughout the study. Meadow hay, mature bunchgrass, mixed browse, browse-bunchgrass and conifer-bunchgrass rations were evaluated. The results of the study indicated the following conclusions: Under winter conditions adult elk daily require about 2.2 pounds of air dry forage per 100 pounds of body weight; elk will utilize deciduous browse but prefer mature bunch-grass; elk lose more weight on a browse diet than a grass diet; and elk show no preference for evergreen (conifers) browse although they can subsist on evergreens for short periods during the winter.

Elk use of various browse plants placed in these feeding shelters showed preference of elk for various browse species and gave clues as to how much food it takes to keep elk going.

A deer food study plot on the Salmon Lake hills of the game range was established in 1953. The study plot contains about 1.4 acres including an exclosure, and is located on a southwest-facing, grassy slope. The objective was to determine the effect of deer concentrations on an important winter range. Five species of vegetation—serviceberry, chokecherry, Oregon-grape, rose and snowberry were measured by a "line-intercept" method on the study plot. The density of these species was low. In 1967, a re-examination of the plot indicated that there was only a slight increase in the vegetation. Most of the increase was made by Oregon grape. There was little change in the density of taller species either inside or outside the exclosure. Serviceberry and chokecherry plants inside the exclosure grew about nine inches in height, while those outside grew only one or two inches. These observations indicate that this winter range site, even under total protection from game use, is not a productive site for browse and will probably not have a high carrying capacity for deer in the foreseeable future. Young ponderosa pine were present in the area protected by the exclosure, but not outside.

A series of browse photo-plots was established in 1953 in a better browse-producing area. Recent comparisons indicated a trend from browse to timber was the most notable change on all plots.

In 1959, a one-half acre exclosure was constructed on the elk winter range on Ovando Mountain. This is a much more productive browse area than the Salmon Lake Hills. The old burn of about three square miles supports a good stand of palatable browse which includes serviceberry, chokecherry, mountain maple, willow, evergreen **Ceanothus** and mountain ash. Differences in these measurements showed that density of palatable browse increased 20 percent inside the exclosure where it has been protected from elk use, but remained the same outside the exclosure where it has been heavily used every year by elk. Douglas fir increased 66 percent inside the exclosure compared to 8 percent outside. This indicates that game use may delay the invasion of conifers, and help maintain the browse ranges in a productive condition longer than if there were no game use.

It is hoped that the results of these studies can be applied to management of the game ranges to make them more productive. For example, all three studies indicate that coniferous trees are gradually invading winter range areas and may eventually shade out the grass, weeds and browse which game animals require for food. Before this happens game managers should take steps to rejuvenate the game ranges. In some areas this could probably be accomplished with timber sales or controlled burns.

In addition to these studies, routine seasonal management information is collected each year in the Blackfoot drainage. This includes range surveys of browse and grass and population surveys. The combined results of these surveys form the basis of recommendations for hunting regulations designed to maintain the most favorable balance between big game animals and their habitat.

There are roughly 20,000 federal, state, county and local firearms laws and ordinances on the books NOW. Despite this number, some people want more laws.

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